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1,439,828.

W. C. W. LUYKEN.
PENCIL HOLDER.
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Fig. 1.

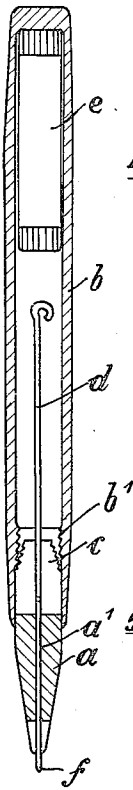


Fig. 2.

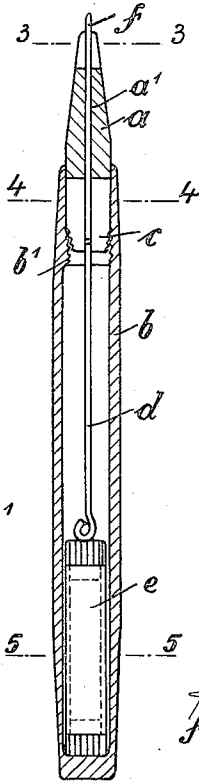


Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.

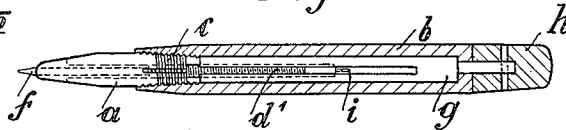


Fig. 7.

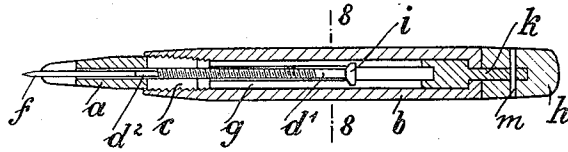
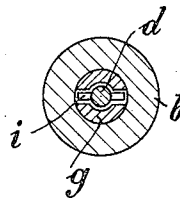


Fig. 8.



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WILHELM CARL WALTER LUYKEN, OF HAMBURG, GERMANY, ASSIGNOR TO THE FIRM
OF THU-WU SCHREIBWAREN-WERKE GESELLSCHAFT MIT BESCHRÄNKTER HAF-
TUNG, OF HAMBURG, GERMANY.

PENCIL HOLDER.

Application filed June 2, 1922. Serial No. 565,430.

To all whom it may concern:

Be it known that I, Dr. WILHELM CARL WALTER LUYKEN, citizen of Germany, residing at Hamburg, Germany, have invented certain new and useful Improvements in Pencil-Holders (for which are filed applications in Germany to one part on February 16, 1921, and to another part on April 26, 1922, by the firm of Thu-Wu Schreibwaren-Werke Gesellschaft mit beschränkter Haftung), of which the following is a specification.

Pencil-holders are known in which the pencil lead is gripped by a special gripping piece screwed into a tubular body. In these known holders the pencil lead is pinched by the gripping piece at a considerable distance from its free end and therefore the point frequently breaks off for a great length, so that the loss is a consideration.

This drawback is not present in the new pencil-holder, in which a firm gripping of the lead by the gripper does not take place, but it is merely held by friction at the utmost end of the gripping piece. The pushing in of the pencil lead when writing is prevented by a special push-rod which enters the bore of the gripping piece and is firmly gripped or pinched thereby, when the gripping piece is screwed home, forming a steady abutment for the pencil lead. When the point of the pencil lead is to project out of the point of the gripping piece to a greater extent the gripper may be loosened by turning it backward, whereupon the push-rod may be moved on longitudinally by hand so as to project to a greater extent into the bore of the gripper. If desired the forward movement of the push rod can be brought about by giving the pencil-holder a flinging movement, without letting it drop, whereby owing to the weight of the push-rod it will project out to a further extent, the gripper of course being loosened at that time. If desired a special weight may rest on the push rod to increase the last described operation. When thus the point of the pencil lead is projected out to the desired extent the push rod will be locked in position by screwing the gripper home again thus giving the pencil lead the necessary hold.

It may be found of advantage to provide the push rod with a screw thread, so

that, when it is held by the gripping piece to a certain extent, it will be given a longitudinal motion when rotated by hand. This object in view a tube telescoping over the push rod may be arranged within the tubular body of the holder, which tube is slotted longitudinally to guide a lateral projection on the push rod. To rotate the tube it may be provided with a shaft through the closed end of the tubular end of the body and attached to a button preferably of the same diameter as the outer diameter of the tubular body. By rotation of this button the longitudinally slotted tube will be turned, thus also rotating the push rod which thereby will screw out or into the gripping piece. When by such operation the pencil lead is pushed out to the desired extent the gripping piece may be screwed further inwardly to grip the thread with a greater force, so as to again give the pencil lead a firm hold.

In the drawings Figs. 1 and 2 are longitudinal sections of the pencil holder in two different positions.

Figs. 3, 4 and 5 are cross sections of the holder shown in Fig. 2 drawn to the lines 3-3, 4-4, and 5-5 respectively.

Fig. 6 represents a modification, the holder body being shown in section and the gripping piece in side view.

Fig. 7 is a longitudinal section of the modification shown in Fig. 6 drawn to a plane at right angles to that of Fig. 6.

Fig. 8 is a cross section of the pencil-holder shown in Fig. 7 drawn to the line 8-8.

The gripping piece *a* which is screwed into the tubular body *b*, is split at both ends, preferably on its outer point by a single cut (Fig. 3) and on its inner end by two cuts crossing one another as will be clearly understood from Fig. 4. This inner end *c* is preferably tapered and provided with an outer thread corresponding to an inner thread *b'* of the tubular body *b*. It may be of advantage though not absolutely necessary that the part where the inner thread *b'* is cut is also inwardly tapered. The gripping piece *a* has an inner bore *a'* to receive the pencil lead *f*, which is held by friction within the outer slotted end of the gripping piece *a*. Into the inner end of the gripping piece a push rod *d* projects, corresponding

in thickness to the bore of the gripping piece *a*. This gripping piece *a* is of a greater length than the pencil lead, so as to allow the push rod *d* to enter the bore at its inner slotted end, even when the pencil lead *f* is pushed inward to such an extent that it disappears at the point. When the gripping piece *a* is screwed home it does not pinch the inner end of the lead, but on the contrary the extreme inner slotted end of the gripping piece when pressed together in entering the internal thread *b'*, grips the pushing rod *d*.

The push rod *d* might be assisted in pushing out the pencil lead by a special weight *e* arranged within the tubular body *b*. When it is desired to let the pencil lead project out through the point of the gripping piece *a*, the gripping piece *a* is loosened by giving it a slight turn to the left and then the pencil holder is held by the hand with its point downward and given a flinging motion without however letting the holder go. By the inertia of the weight the friction with which the pencil is held in the gripping piece is overcome and its point will project out to a certain extent. If it projects out too far, it can be easily pushed in further, by pressing it down on the paper or the table. When thus correctly adjusted the push rod will be locked in position by screwing the gripping piece home, thus pressing the inner screw threaded end together, firmly gripping the push rod and giving the pencil lead the desired abutment. The weight *e* is preferably made of a cylindrical hollow body, containing a certain amount of pencil leads *f* (Fig. 5).

Should it not be desired to depend on pushing out the pencil on giving the holder a flinging movement, the push rod may be provided with a screw thread (Figs. 6 and 7). By rotating this push rod *d'* when gripped loosely by the gripping piece *a* it will move there or back though the wall of the bore may be smooth. Of course the longitudinal movement will be more positive, if the bore is given an inner thread, which however is not an absolute necessity. If smooth the bore of the gripping piece will only at its outer end be equal the diameter of the pencil lead *f* to hold it by friction, while the greater part of the bore will be given the diameter of the thicker threaded push rod *d'*. If desired the front or lower end of the push rod *d'* might be reduced in thickness to correspond to the thickness of the pencil lead so as to enable even short pieces of pencil lead to be pushed out of the gripping piece.

For giving the push rod *d'* the necessary rotation means may be provided such as hereinafter described. A tube *g* is given such diameter as to enable it to be placed within the tubular body *b* and to surround

the push rod *d'*. This tube *g* is slotted longitudinally and a lateral projection or head *i* on the push rod *d'* projects into the longitudinal slots of the tube *g*. A shaft *k* of the tube *g* projects out at the closed end of the body *b* and is fixed to a button *h* by a pin *m*. The button *h* is preferably shaped to form a prolongation of the body *b*, thus giving it the appearance of merely forming the upper end of the holder. By rotating the button *h* the push rod *g* will also be rotated and moved in longitudinal direction owing to the slot and pin connected with the tube *g*. For enabling this operation the gripping piece *a* will be preferably loosened to a certain extent and when the pencil lead is thus adjusted in the desired manner the gripping piece *a* will be again tightened, thus pressing its inner ends against the threaded rod *d'* and holding it fast in position.

If desired the locking piece may be screwed inwardly to such an extent that it holds the push rod firmly enough to prevent the pencil lead, when writing from being pushed inwardly and nevertheless allowing the rotation in spite of the wall of the bore being smooth. If it is desired to push the pencil lead back the gripping piece *a* may be loosened by giving it a slight turn to the left and when the holder is then pressed down on the table the pencil and the push rod will be pushed inwardly.

I claim:

1. A pencil holder comprising a tubular body one end of which being open and screw threaded internally, a gripping piece screw-threaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead and a push rod adapted to enter the bore of the gripping piece and to be held by friction therein, when the gripping piece is screwed home.

2. A pencil holder comprising a tubular body one end of which being open and screw threaded internally, a gripping piece tapered and screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead and a push rod adapted to enter the bore of the gripping piece and to be held by friction therein, when the gripping piece is screwed home.

3. A pencil holder comprising a tubular body one end of which being open and screw threaded internally, a gripping piece slotted at its ends and screw threaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead and a push rod adapted to enter the bore of the gripping piece and to be held by friction therein, when the gripping piece is screwed home.

4. A pencil holder comprising a tubular body one end of which being open and inwardly tapered, and screw threaded, a gripping piece tapered and screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead and a push rod adapted to enter the bore of the gripping piece and to be held by friction therein, when the gripping piece is screwed home.

5. A pencil holder comprising a tubular body one end of which being open and screwthreaded internally, a gripping piece screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead and a push rod, having an external screwthread and adapted to enter the bore and to move longitudinally when rotated after the gripping piece is screwed home.

6. A pencil holder comprising a tubular body one end of which being screwthreaded internally, a gripping piece screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead, a push rod having an external screw thread and adapted to enter the bore and to move longitudinally when rotated after the gripping piece is screwed home, and means to rotate the push rod.

7. A pencil holder comprising a tubular body one end of which being screwthreaded

internally, a gripping piece screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead, a push rod having an external screw thread and adapted to enter the bore and to move longitudinally when rotated after the gripping piece is screwed home, and means to rotate the push rod, consisting for the greater part of its length of a longitudinally slotted tube, projecting out at the closed end of the holder body, the push rod having a lateral projection, adapted to enter the longitudinal slot, so as to be rotated when turning the slotted tube from outside.

8. A pencil holder comprising a tubular body one end of which being screwthreaded internally, a gripping piece screwthreaded at one end corresponding to the internal screw thread of the tubular body and bored longitudinally to form a passage way for a pencil lead, a push rod having an external screw thread and adapted to enter the bore and to move longitudinally when rotated after the gripping piece is screwed home, and means to rotate the push rod, consisting of a longitudinally slotted tube, a shaft on the tube projecting through the closed end of the holder body and carrying a button by which it can be turned, the push rod having a lateral projection adapted to enter the longitudinal slot so as to be rotated when the said button is turned.

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